High precision binary pulsar timing at Arecibo

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We will discuss recent results from an ongoing program of high precision long-term pulsar timing at the Arecibo Observatory. Among our recent findings are an unusually high mass (2.1+-0.2 solar masses) of PSR J0751+1807; mesurements of J0751+1807 and other pulsars which show an apparent inverse correlation between pulsar mass and orbital period; and a surprisingly low proper motion measured for the Hulse-Taylor binary pulsar B1913+16.